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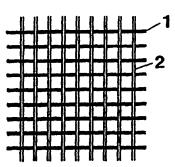


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| (54) Title: A DEVICE WITH MIXED FABRIC, CONSIST CURTAINS AND FOR WORKING CLOTHE                      |         | F METAL THREADS AND YARN, FOR EXTERIOR AND INTERIOR THE PROTECTION FROM RADIO-WAVES  |

#### (57) Abstract

The device according to the present invention may be used for the realization of any kind of curtain, for exterior and for interior, as well as for the manufacturing of working clothes and accessories, and it mainly consists of a fabric of metal threads (1) and natural or synthetic yarns (2), that determines the realization of a net-like defence with continuity solutions of smaller dimensions that half the wave length of the radio-waves, which therefore can not overcome it. Said fabric alone allows the realization of curtains of any kind or it may be suitably inserted into conventional clothes.



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"A DEVICE WITH MIXED FABRIC, CONSISTING OF METAL THREADS AND YARN, FOR EXTERIOR AND INTERIOR CURTAINS AND FOR WORKING CLOTHES FOR THE PROTECTION FROM RADIO-WAVES"

PCT/IT96/00104

The present invention concerns a device, consisting of a fabric mixed with metal threads and natural or synthetic yarn, for the realization of curtains of any kind, for exterior and interior, and for the manufacturing of working clothes for the protection from radio-waves.

The most recent developments of metrological technology are showing the presence of unnatural radio-wave concentrations in the living and working rooms of modern towns.

Said concentrations are due to the manifold sources of radio-waves of all frequencies, like radio waves, television waves, micro-waves and other more, due to the emissions of the many existing radio- and telecommunication systems and also to sources located in the different rooms, as electric household appliances, portable telephones, working machines and other devices.

The bombing with the radio-waves of different frequencies to which the organism of the inhabitants of modern megalopolis are subject cause the most serious pathologies - as the sanitary statistics are proving - and mostly leukaemia, cancers, detachment of the retina and others more.

On the other hand, some of the radio-wave frequencies are efficaciously filtered by the thickness of the building walls, limiting the pathologic effects to the sole living and working rooms in front of the windows through which all kinds of electromagnetic waves enter in the interiors.

It is the aim of the present invention to eliminate such serious environmental pollution as well as its pathologic consequencies, just near the windows and near dangerous, located sources during work and in civil ambients.

The aim set forth is reached by means of the device according to the present invention, that may be used for the realization of any kind of curtain, for exterior and for interior, as well as for the manufacturing of working clothes and

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accessories, mainly consisting of a fabric with metal threads and natural and synthetic yarn, that will determine a net-like defence with continuity solutions of smaller dimensions than half the wave length of the radio-waves, which therefor cannot pass through said fabric.

Said fabric allows the realization of curtains of any kind, or it may be suitably inserted inside conventional fabrics, always with the same purpose.

The present invention will be described more in detail hereinbelow relating to the enclosed drawings in which some embodiments are shown.

Figures 1 and 2 show two variants of the device according to the present invention, consisting of a fabric mixed with metal threads and natural or synthetic yarn, for the realization of curtains of any kind, for exterior and interior, and for the manufacturing of working clothes for the protection from radio-waves, in which alterlatively the warp and weft consist of metal threads and natural or synthetic yarns.

Figure 3 shows a device according to the present invention consisting of a fabric with alternate metal threads and yarns, along the warp as well as along the weft.

Figure 4 shows one application of the device according to the present invention, consisting of a panel of sliding and swinging curtain for the electromagnetic protection of a window.

Figure 5 shows a scheme of a roll-up out of a small metal net for the electromagnetic protection of a window.

Figure 6 shows a variant for a balcony roll-up curtain.

Figure 7 shows the use of the device for the manufacturing of a protection overall for a person working on machines emitting radio-waves.

The enclosed figures show a fabric mixed with metal threads 1 of aluminium, copper or other metals and natural yarn 2, of wool, cotton, synthetic ot other material, prepared for realizing respectively the warp, the weft ot both, so as to allow the realization of curtains 3, 4

for interior and 5 for exterior, for the electromagnetic protection of windows and/or rooms, and realizing a defence with continuity solutions smaller than half the wave length of the radio-waves.

Relating in particular to figure 4, the device according to the present invention allows the realization of a sliding and swinging curtain 3, consisting of a plurality of panels P provided with hollow spaces 6 for the insertion of metal net defences 1 or, in a variant, of plate defences, that stop the radio-waves.

A similar defence with a metal net 1 may be realized like a roll-up 7, as it is shown in figure 5, for determining the electromagnetic protection corresponding to the exact dimensions of a window.

The screening of exterior spaces may be also realized by means of the variant of the device according to the present invention shown in figure 6, in which the balcony curtain 8 consists of an original cloth T and of the small metal net 1 placed between a covering cloth 9.

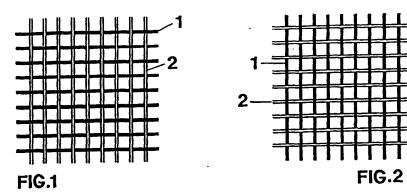
All above described variants of the device according to the present invention may be used for manufacturing protection overalls 10, white coats, gloves, hats and working clothes and glasses, which all may be used in risk areas like plants with microvawe welders, radio bridges, radar systems and similar.

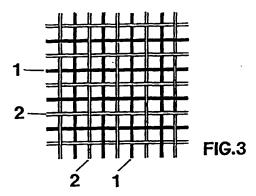
According to the present invention, covering tapestry for particularly exposed walls may be realized, consisting of small metal nets inserted into cloth or paper.

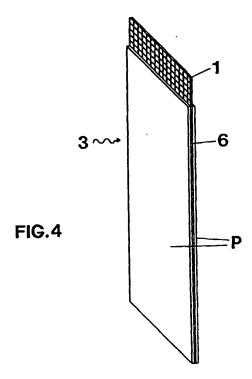
#### CLAIMS

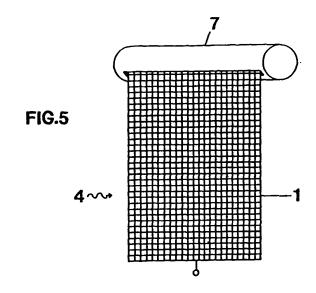
- 1. A device characterized in a fabric mixed with metal threads (1) of aluminium, copper or other metals and natural yarn (2), of wool, cotton, synthetic ot other material, prepared for realizing respectively the warp, the weft ot both, so as to allow the realization of curtains (3, 4) for interior and (5) for exterior, for the electromagnetic protection of windows and/or rooms, and realizing a defence with continuity solutions smaller than half the wave length of the radio-waves.
- 2. A device according to claim 1, characterized in that it is inserted in a sliding and swinging curtain (3), consisting of a plurality of panels (P) provided with hollow spaces (6) for the insertion of metal net defences (1) or, in a variant, of plate defences, that stop the radiowaves.
- 3. A device according to claim 1, characterized in that it is of the roll-up kind (7), as it is shown in figure (5), for determining the electromagnetic protection corresponding to the exact dimensions of a window.

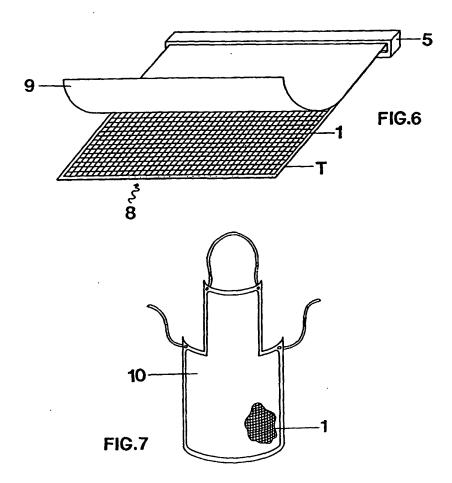
- 4. A device according to claim 1, characterized in that it is inserted into a balcony curtain (8) that consists of an original cloth (T) and of the small metal net (1) placed between a covering cloth (9).
- 5. A device according to claim 1, characterized in the manufacturing of protection overalls (10), white coats, gloves, hats and working clothes and glasses, which all may be used in risk areas like plants with microvawe welders, radio bridges, radar systems and similar.
- 6. A device according to claim 1, characterized in small metal nets inserted into cloth or paper for the realization of covering tapestry for particularly exposed walls.











# INTERNATIONAL SEARCH REPORT

Inter nal Application No PCT/IT 96/00104

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